, Work Order ID 57041

March 17, 2010 4:39:46 PM

Required Date: 06/04/2010



Page 1

Item ID:

D205-634-041

Accept

Setup Start



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

17/03/2010

Start Qty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Draw

Number

Reference:

Approvals:

Process Plan:

Date 15-17

Tooling:

Date:

Start

Stop

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID Operation Description Set Up/ **Run Hours**

Draw Rev.

Accept Plan Qty Code

Qty

Reject

Draw Nbr

Revision Nbr

D2580

100

Rev D

DOCUMENT CONTROL

Memo

0.00

0.00

Document Control

Photocopy D205-634 bluefile & type labels per PPP D205-634-041 CHG002

0.00

CNC Delta 100 Bender

BENDING MACHINE - SKIDTUBES

0.00

2-Cut tubes as per Dwg. D2580

Run

Reject

Number

Insp. Stamp

110

CNC Bend I

Memo

1-Bend as per program D2580.C on CNC Bender and Folio FT009

Dart Aerospace Ltd	Dart	Aeros	pace	Ltd
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W/O:			WC	ORK ORDER CHANG	GES				nile to		
DATE	STEP	PRO	CEDURE CHA	NGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
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Part No	:	PAR #:	Fault Cate	gory:	_ NCI	R: Yes	No DQA	:	_ Date: _	Mil.	
		esolution: Disposition: QA									
NCR:		V	VORK ORDI	ER NON-CONFORM	ANCE	(NCR) 4				
DATE STEP		Description of NC Corrective Action			tion B	_0.5	Verific	ation	Approval	Approval	
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date		Section C	Chief Eng	QC Inspector	
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, Work Order ID 57041

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Page 2

Item ID:

D205-634-041

Revision ID:

Replacement Skidtube **Item Name:**

Start Date: 17/03/2010

Required Date: 06/04/2010

Start Qty: 1.00

Req'd Qty: 1.00

Accept



Setup Start



Cust Item ID:

Customer:

Draw

Number

Reference:

Process Plan: Approvals:

Date:

Tooling:

Date:

Draw

Rev.

Plan

Code

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Reject

Qty

Reject Number Stamp

BE 19/03/29

Sequence ID/ Work Center ID

120

Skidtubes Skidtubes

Operation Description

Set Up/ Run Hours

0.00

0.00

Memo 1- Deburr ends

Memo

2- C'sink holes as per dwg without cutting fluid

3- Prepare tube for welding, remove alodine as required.

4- Scribe batch number insied aft end of tube.

130

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

5 10/03/79

Accept

Qty

Dart Aeros	pace Ltd
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W/O:			WO	RK ORDER CHANG	GES			4	· ·
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	Re	esolution:					8	Date: _	
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DATE STEP		Description of NC		Corrective Action Sec				Approval	Approval
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Work Order ID 57041

March 17, 2010 4:39:46 PM

Page 3

Item ID:

D205-634-041

Accept

Setup Start



Revision ID:

Replacement Skidtube Item Name:

17/03/2010

Start Oty: 1.00 Required Date: 06/04/2010

Reg'd Qty: 1.00



Cust Item ID: Customer:

Reference:

Start Date:

Approvals:

Process Plan:

Date:

Date:

Tooling:

Date:

Run

Start Stop

Stop



OC:

SPC (Y/N):

Date:

Reject Insp.

Sequence ID/ Work Center ID

Skidtubes

Skidtubes

Operation Description Set Up/

Run Hours 0.00

Draw Number

Plan Draw Code Rev.

Accept Qty

Reject Qty

Number Stamp

Memo

0.00

1-Weld step D2576 as per Dwg. D2580 and QSJ 004 A/R Aluminum Rod

2-Prep per QSI 005 and weld crossbolt spacers D2579 as per Dwg. D2580, QSI

For D2579 spacers, weld one side, pass 3/8" drill, weld other side, pass 3/8" drill A/R Aluminum Rod

3-Grind welds as per Dwg D2580 Grind flush ridge made from bending

4-Drill holes for wearplates using DT 8217 & DT8937 Open holes to 19/64", adjust stopper not to hit web.Deburr

5-Counterbore crossbolt spacers to 7/16" ID x 1.0" deep as per Dwg D2580. Deburr holes

6-Drill pilot holes for aft cap using DT 8215Open holes to 0.208". Deburr

7-Drill pilot holes for Tow ring using DT8091, open to .640" and Deburr

BE 10/03/30

Dart	Aeros	pace	Ltd
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W/O:			W	ORK ORDER CHANG	ES					
DATE	STEP	PRO	CEDURE CH	ANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
Part No		PAR #:								
	R	esolution:	Disposition	on:	_ QA: N/C CI	osed:		Date:		
NCR:		V	VORK ORD	ER NON-CONFORMA	ANCE (NCF	1)				
DATE STEP		Description of NC				Verifica	ation	Approval	Approval	
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		N -								

. Work Order ID 57041

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Page 4

Item ID:

D205-634-041

Accept

Setup Start

Stop

Start



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

17/03/2010

Start Qty: 1.00

Required Date: 06/04/2010

Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

QC:

Date: Date: Tooling:

SPC (Y/N):

0.00

0.00

Date: Date: Run Stop

Reject

Qty

Sequence ID/ Work Center ID

150

Quality Control

Operation Description

QC10- Inspect visual per QSI004- ground welds

Set Up/ **Run Hours**

Draw Number

Plan Draw Code Rev.

Accept Qty

Reject

Number

Insp. Stamp

160

Quality Control

Memo

QC5- Inspect part completeness to step on W/O

0.00

0.00

170

HandFinish

Hand Finishing

Pressure Wash per QSI005 4.3

Memo

0.00

0.00

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch and leave fwd cap out of solution.

Dail Aciospace	Ltd	ace Ltd	
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W/O:			١	WORK ORDER C	HANGES					, ,
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Part No		PAR #:								
	R	esolution:	Disposi	tion:	Q/	A: N/C CI	osed:		_ Date: _	
NCR:		W	ORK OR	DER NON-CONF	ORMANC	E (NCR	1)			
DATE	STEP	Description of NC Section A	Initial	Corrective Action Action Descr	Section B	Sign &	Verific		Approval	Approval
		Section A	Chief Eng	Chief Eng		Date	Section	on C	Chief Eng	QC Inspector

.Work Order ID 57041

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Item ID:

D205-634-041

Accept

Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

17/03/2010

Start Qty: 1.00

Required Date: 06/04/2010 Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

QC:

Process Plan:

Date:

SPC (Y/N):

Tooling:

Date:

Run

Start



Date:

Stop

Sequence ID/ Work Center ID



Operation Description

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

FINISH TIME:

Set Up/ **Run Hours**

Draw Number

Plan Draw Rev. Code

Accept Qty

Reject Reject Number Qty

Insp. Stamp

Powdercoat

Powder Coating

OVEN TEMPERATURE:

Date:

0.00

0.00

190

QC3- Inspect Part Finish

Memo

0.00

M 10/01/06

Quality Control

Dart Aeros	pace Ltd	
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W/O:			W	ORK ORDER CHANG	ES				, x
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·Work Order ID 57041

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Item ID:

D205-634-041

Accept

Setup Start



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

17/03/2010

Start Qty: 1.00

Required Date: 06/04/2010

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

QC:

Date:

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Start Run

Qty

Stop

Stop



Sequence ID/ Work Center ID

200

HandFinish Hand Finishing Description

Operation

Set Up/ Run Hours Draw Number Draw Plan Rev. Code Accept Qty

Reject Reject

Insp. Number Stamp

Memo

0.00

0.00

1-Install inserts & wearplates & Gaskets as per Dwg. D2580. Use a drop of Sikaflex on insert holes before installing wearplate

A/R DDD Sikaflex-291 M

Sikaflex expire date:

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with

Sikaflex. Clean excess adhesive A/R 🗆 🗆 Sikaflex-291

Sikaflex expire date: 10/08.

5-Wing Walk as per Dwg D2580 and QSI 005 4.4

BK 10-4-70

Dart Aerospace Ltd

W/O:			W	ORK ORDER CHANG	ES				
DATE	STEP	PRO	OCEDURE CHA	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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DATE	STEP	Description of NC Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C		Approval Chief Eng	Approval QC Inspector
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· Work Order ID 57041

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Item ID:

D205-634-041

Accept

Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

17/03/2010

Start Qty: 1.00

Required Date: 06/04/2010

Req'd Qty: 1.00



Cust Item ID:

Customer:

Draw

Number

Reference:

Approvals:

Process Plan:

Tooling:

Date:

Draw

Rev.

Plan

Code

Accept

Oty

Run Start

Reject

Qty



QC:

Date:

Date:

SPC (Y/N):

Date:

Stop

Reject

Number Stamp

Insp.

Sequence ID/ Work Center ID

210



Quality Control

Operation Description

QC5- Inspect part completeness to step on W/O

Set Up/ Run Hours

0.00

0.00

0.00

0.00

Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for

Foreign objects per QSI 024



Packaging Packaging

Packaging

Memo

Identify and pack for shipping as per PPPD205-634-041 Location:

PPP Rev:

230

Quality Control

QC21- Final Inspection - Work Order Release

Memo

0.00

0.00

E10/4/14+0

10-4-14 10-4-14

Dart Aerospa	ace Ltd
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W/O:		No.	WO	RK ORDER CHANG	ES	THE THE		- 3	ally dis
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Part No		PAR #:							
	H	esolution:						Date:	10
NCR:	141		WORK ORDE	R NON-CONFORMA	NCE (NCF	?)			
DATE	STEP	Description of NC		Corrective Action Section		Verific	ation	Approval	Approval
DAIL	SIEF	Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date	Secti		Chief Eng	QC Inspector
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March 17, 2010 4:39:51 PM

Work Order ID: 57041

Parent Item: D205-634-041

Parent Item Name: Replacement Skidtube

Comments: IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Date: 17/03/2010

Start Qty: 1.00

Required Qty: 1.00

Required Date: 06/04/2010

Page 1

D2580-1

Manufactured No

110

Each

6.0000

Loc Code

1.0000

B-56795 MB 10-03-29

205 Skidtube bent detail Warehouse Loc Oty Location Main Warehouse

Manufactured

LG 54541 56667 2

56767

Each

127.0000 1.0000

D2576-3

Step (maching detail)

Warehouse Loc Qty Loc Code Location Main Warehouse LG 127 46661 80 52215 47

140

1 BE 14/03/20

Dart Aerosp	pace Ltd	
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W/O:			WC	RK ORDER CI	HANGES					
DATE	STEP	PRO	OCEDURE CHA	NGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Work Order ID: 57041

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Date: 17/03/2010

Required Date: 06/04/2010

Start Qty: 1.00

Required Qty: 1.00

D2579

Crossbolt Spacer

Manufactured No

140

Each

188,0000 20,0000



Loc Code

BE 10/03/30

Dart Aerospace	e Ltd
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W/O:			WC	ORK ORDER CHANG	GES				
DATE STEP		PRO	OCEDURE CHA	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	:	PAR #:	Fault Cate	gory:	NCR: Yes	No DQA	:	_ Date: _	
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DATE	STEP	Description of NC			tion B	Verifica	ation	Approval	Approval
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Page 3

Work Order ID: 57041

Parent Item:

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:N \Box 02.08.28 \Box FP was QC5 in Step 27; Added QC5 to Step 30 \Box KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Qty: 1.00

Start Date: 17/03/2010

Required Date: 06/04/2010

Required Qty: 1.00

D2855

Manufactured No

200

Each

139.0000 1.0000

Cap	

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
FP6	T.	
56613	1	
Main Warehouse		
ST026	138	
50513	1	
50770	1	
51539	37	

AN3-5A

Purchased

53791

99

Each

1,397.000 2.0000

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST350	1397	
100188	188	
105057	1209	

200

2 bl 10-4-7.

Dart Aerospace Ltd W/O: WORK ORDER CHANGES Approval Approval DATE STEP PROCEDURE CHANGE By Date Qty Chief Eng / QC Inspector Prod Mgr Part No: ______ PAR #: ____ Fault Category: _____ NCR: Yes No DQA: ___ Date: ___ Resolution: _____ Disposition: _____ QA: N/C Closed: ____ Date: ____ WORK ORDER NON-CONFORMANCE (NCR) NCR: **Corrective Action** Section B Description of NC Verification DATE STEP Approval Approval Sign & **Action Description** Initial Section A QC Inspector Section C Chief Eng Chief Eng Chief Eng Date

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Page 4

Work Order ID: 57041

Parent Item:

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:N \Box 02.08.28 \Box FP was QC5 in Step 27; Added QC5 to Step 30 \Box KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD IPP Rev. O 06.02.28 Added paperwork

IPP Rev:P 07-07-09

SS Wearplates & Gaskets

JLM

Start Date: 17/03/2010

Start Qtv: 1.00

Required Date: 06/04/2010

Required Qty: 1.00

AN960JD10L

Purchased

200

Each

3,025.000 2.0000

Washer

Warehouse Loc Qty Loc Code Location Main Warehouse ST348 3025 101291 16 105793 49 110985V 2960

ALS7-1032-130

Purchased

No

200 Each

986.0000 50.0000



Insert		

Warehouse	Loc Qty	Loc Code
Location		and code
Main Warehouse		
ST282	986	
108606	52	
111529	130	
111779 /	34	
112772	11	
113238	759	

50. BL 10-4-7.

2 bl 10-4-7

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W/O:			W	ORK ORDER CHANG	ES				•	
DATE	STEP	PRO	PROCEDURE CHANGE			Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
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Work Order ID: 57041

Parent Item:

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:N \Box 02.08.28 \Box FP was QC5 in Step 27; Added QC5 to Step 30 \Box KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

114103

114108

Start Date: 17/03/2010

Start Qty: 1.00

Required Date: 06/04/2010

Required Qty: 1.00

AN3C4A

Purchased

200

Each

1,193.000 50,0000



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			Ш	Ш
DOLT				

BOLT

Warehouse	Loc Oty	Loc Code
Location		
Main Warehouse		
ST350	1193	
112314	13	
112720	12	
112724	3	
112829	1	
112991	2	
113121	64	
113226	244	
113644	12	
113749	11	

331

500

Dart Aerospa	ce Ltd	
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W/O:			WC	ORK ORDER CHANG	ES					
DATE	STEP	PROCEDURE CHANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
Part No	:	PAR #:	Fault Cate	gory:	NCR: Yes	No DQA:		Date:		
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NCR:		V	VORK ORD	ER NON-CONFORMA	NCE (NCR)				
DATE	OTED	Description of NC Corrective Action Sec			on B	Verifica	tion	Approval Chief Eng	Approval	
DATE	STEP	Section A	Initial Action Description Chief Eng Chief Eng		Sign & Date	Section C			Approval QC Inspector	
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Work Order ID: 57041

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:

IPP Rev:N \square 02.08.28 \square FP was QC5 in Step 27; Added QC5 to Step 30 \square KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC IPP Rev:P 07-07-09

SS Wearplates & Gaskets

JLM

Start Date: 17/03/2010 Start Qty: 1.00

Required Date: 06/04/2010

Required Qty: 1.00

AN960C10L

Purchased

200

Each

100

100

288

388.0000 50.0000



washer

Warehouse

Loc Qty

Loc Code

Location

NAS1149C 0332R, OFFSHORE //3524

ST

103585 Main Warehouse

112116 112612

128 160

D3566-13

Manufactured

200

Each

66.0000 1.0000



Gasket		

Warehouse	Loc Oty	Loc Code
Location		255 Cour
Main Warehouse		
FP /	64	
53461	64	
Main Warehouse		
ST	2	
45717	1	
50265	1	

BR 10-4-7.

50 Bl 10-4-7

March 17, 2010 4:39:51 PM

Shop Packet Print

Page 6

Dart Aerospace	Ltc
W/O.	

W/O:			W	ORK ORDER CHAN	GES				•		
DATE STEP PROCE		CEDURE CHA	EDURE CHANGE			Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
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Resolution					QA: N/C Closed: Date:						
NCR:		V	ORK ORD	ER NON-CONFORM	IANCE (NC	R)					
DATE	STEP	Description of NC Corrective Action			Section B		cation	Approval	Approval		
		Section A	Initial Chief Eng			Section C		Chief Eng	QC Inspector		
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Work Order ID: 57041

Parent Item:

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC IPP Rev:P 07-07-09

SS Wearplates & Gaskets



Start Date: 17/03/2010

Start Qty: 1.00

Required Date: 06/04/2010

Required Qty: 1.00

D3566-5

Manufactured

Manufactured

200

Each

14.0000

1.0000

Gasket

Warehouse		Loc Qty	Loc Code	
Location				1 -
Main Warehouse				
FP19 /		11		
55335		11		
Main Warehouse				10.7
ST		3		
36113		1		- 6.1
46186		1		
51260		1		
	200	Each	19.0000	2.0000

D3566-1



Gasket

Warehouse Loc Qty Loc Code Location

Main Warehouse FP 56825 14 52512 54480 55011 56532 Main Warehouse ST 46349

a bf10-4-7.

March 17, 2010 4:39:51 PM

Shop Packet Print

51218 51259

Page 7

Dart	Aero	space	Ltd
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W/O:			W	ORK ORDER CHANG	GES						
DATE STEP		PRO	PROCEDURE CHANGE			С	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
Part No		PAR #:									
Resolution:			Disposition: Q								
NCR:		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	WORK ORD	ER NON-CONFORM	ANCE (NO	CR)					
DATE	STEP	Description of NC Section A	Initial Chief Eng			n &	Verification Section C		Approval Chief Eng	Approval QC Inspector	
				Office Eng	Da					2	

*March 17, 2010 4:39:51 PM

Page 8

Work Order ID: 57041

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD IPP Rev. O 06.02.28 Added paperwork

IPP Rev:P 07-07-09 SS Wearplates & Gaskets

Start Date: 17/03/2010 Start Qty: 1.00

Required Date: 06/04/2010

Required Qty: 1.00

D3564-11

Wearshoe

Manufactured No

Manufactured

200

Each

5.0000

1.0000

Warehouse Loc Oty Loc Code

Location Main Warehouse

FP19

ST 45823

Main Warehouse

50112

200 Each

27.0000

1.0000

D3564-13

Wearshoe

Warehouse Loc Qty Loc Code Location

Main Warehouse FP17

56285

Main Warehouse ST 45409

46495

15 15 12 2

10

Dart Aerospace Ltd W/O: WORK ORDER CHANGES Approval Approval DATE STEP PROCEDURE CHANGE By Qty Chief Eng / Date QC Inspector Prod Mar Part No: ______ PAR #: ____ Fault Category: _____ NCR: Yes No DQA: ___ Date: ____ Resolution: _____ Disposition: _____ QA: N/C Closed: ____ Date: ____

NCR:			WORK ORDI	RDER NON-CONFORMANCE (NCR)							
		Description of NC		Corrective Action Section B		Verification	Approval	Annroyal			
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	Approval QC Inspector			
								-			
					+						
	185										

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Work Order ID: 57041

Parent Item: D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM



Start Date: 17/03/2010

Start Oty: 1.00

Required Date: 06/04/2010

Required Oty: 1.00

D3564-9

Wearshoe

Manufactured No

Manufactured

200

Each

12.0000 1.0000

1.0000

Warehouse	Loc Qty	Loc Code
Location		Doc Code
Main Warehouse		
FP19	11	
55334	11	
Main Warehouse		
ST	797	

200

44659

45824

Each

26.0000

D3564-5

Wearshoe

Warehouse	Loc Qty	Loc Code
Location		<u> </u>
OFFSHORE		
FG	2	
34806	2	
Main Warehouse		
FP19	23	
55024	11	
55333	12	
Main Warehouse		
ST	1	

Dart Aerospa	ce	Ltd
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W/O:			V	VORK ORDER CHAP	NGES					• • •
DATE	STEP	PROC	EDURE CH	HANGE		By Date C			Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No:		PAR #:	_ Fault Ca	tegory:	NCR	: Yes N	lo DQA	:	Date:	
Resolution:										
NCR:		W	ORK OR	DER NON-CONFOR	MANCE	(NCR)				
DATE	STEP	Description of NC	Corrective Action Section B			Verific		ation	Approval	Approval
	0,2,	Section A	Initial Chief Eng	Action Descriptio	on	Sign & Date	Section C		Chief Eng	QC Inspector

March 17. 2010 4:39:51 PM

Page 10

Work Order ID: 57041

Parent Item:

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Date: 17/03/2010 Start Oty: 1.00

16 Bl 10-4-7

Required Date: 06/04/2010

Required Qty: 1.00

D2594-3

O-Ring, 205 Skidtube

Manufactured

200

200

Each

420.0000 16.0000



Warehouse	Loc Qty	Loc Code
Location	1	
Main Warehouse		
FP	420	
51613	27	
52562	13	
55546	380	

D2594-1



Plug, 205 Skidtube

Manufactured

Each

513.0000 16.0000



Warehouse	Loc Oty	Loc Code
Location		
Main Warehouse		
FP	513	
42221	16	
42807	92	
43884	3	
46435	2	
51527	9	
51757	6	
54008	ī	
54643 /	15	
55002 🗸	369	

16. BR 10-4-7.

Dart Aeros	pace Ltd
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W/O:		WORK ORDER CHANGES									
DATE STEP		PROG	CEDURE CHA	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		
								_			
Part No		PAR #:									
Resolution:											
NCR:		W	ORK ORD	ER NON-CONFORM	ANCE (NO	CR)					
DATE	STEP	Description of NC Section A	Initial	Corrective Action Sec Action Description	tion B		ification ection C	Approval	Approval		
			Chief Eng	Chief Eng	Da	te	Scholl C	Chief Eng	QC Inspector		
			9						- 1		



DESIG	世	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECK	KED	APPROVED	DRAWING NO. REV. D
DATE	PP	N	D2580 SHEET 1 OF 3
1000			TITLE SCALE
07.0	02.27		205 SKIDTUBE ASSEMBLY NTS
Α		96.09.16	NEW ISSUE
В	1	96.12.02	AS MANUFACTURED
С	15 1 g H	98.08.26	REDRAWN, INCLUDED DEO 9094/9097
D	144	07.02.27	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183

FARE ILL NCONTE SUBJECT FL.

WITHOUT WEST ACT WORK OF R 30 5704



QTY -041	QTY -045	Part Number	Description
X		D2580-041	SKIDTUBE ASSEMBLY
	X	D2580-045	SKIDTUBE ASSEMBLY
1	1	D2500-1-190	EXTRUSION
1	1	D2576-3	STEP
20	24	D2579	CROSS BOLT SPACER
16	16	D2594-1	PLUG
16	16	D2594-3	O-RING
1	1	D2596	205 WEB
1	1	D2855	AFT CAP
1	1	D3564-5	WEARSHOE
1	1	D3564-9	WEARSHOE
1	1	D3564-11	WEARSHOE
1	1	D3564-13	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
1	1	D3566-13	GASKET
50	50	ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
50	50	AN3C4A	BOLT
2	2	AN3-5A	BOLT
50	50	AN960C10L	WASHER
2	2	AN960JD10L	WASHER

GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291.
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:

SEE NOTES ON

PAGE 2 FOR D2580-041 AND

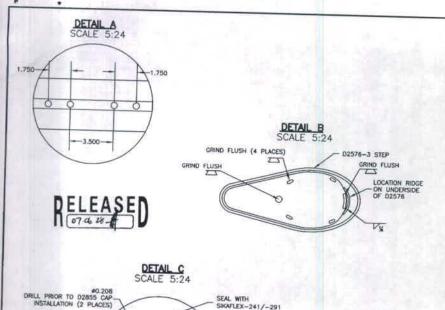
PAGE 3 FOR D2580-045

8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

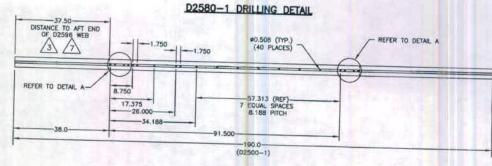
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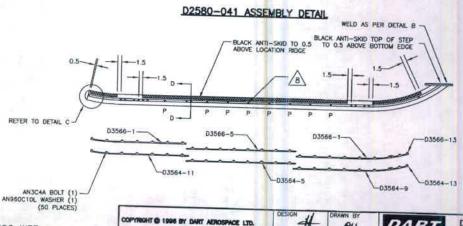


SEAL WITH SIKAFLEX-241/-291



D2580-1 BENDING AND CUTTING DETAIL





0.40 SECTION D-D SCALE 5:24 D2579 SPACER-AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR #0.508 HOLES ONLY: 1. CHAMFER HOLE 0.050 X 45" D2596 WEB (REF) 2. INSERT D2579 SPACER (20 PLACES) 3. WELD INTO PLACE AND GRIND FLUSH 4. C'BORE D2579 SPACER TO #0.437 X 1.00 DEEP ALS7-1032-130 (REF) (TYP 50 PLACES)

D2580-041 NOTES FINISH:

AN3-5A BOLT (1) AN960JD10L WASHER (1)

(2 PLACES)

D2855 CAP

ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB POWDER COAT ASSEMBLY GLOSS WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

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DART AEROSPACE LTD. DART D2580 DATE TITLE 07.02.27 205 SKIDTUBE ASSEMBLY

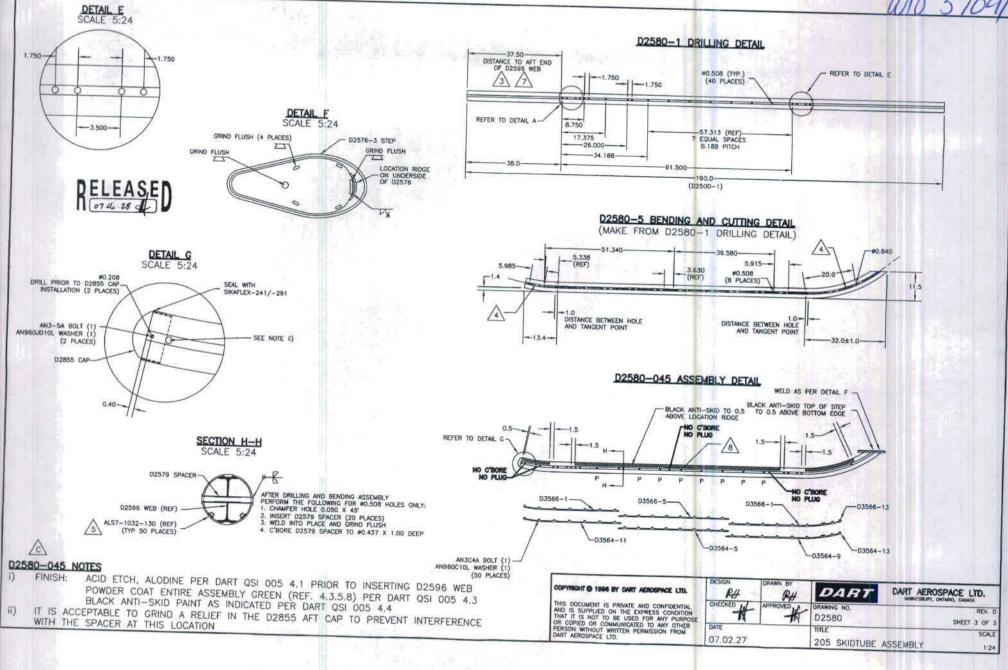
REV. D

SCALE

1:24

SHEET 2 OF 3

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NO. 227

AWS D17.1.2001 QUALIFICATION TEST RECORD

Name:	Bardan Elliott	
	nber: 569250	
Part nun	mber: D205-634-041	
	tion: 205 skid tube	
	Process: Tig[Mig[]	
Base ma	iteriel: Alyminian	
	: AC[] DC[]	

TEST REQUIREMENTS AND RESULTS

Visual:	pass[]	fail[]
Penetration:	pass[]	fail[]
UNACCEPTABLE		
Cracks:	pass[/]	fail[]
Undercut:	pass[]	fail[]
Pin holes:	pass[/	fail[]
Overlap (cold lap)	pass[]	fail[]
Porosity (surface):	pass[]	fail[]
Coloration:	pass[/]	fail[]
ř		
Qualifier Lad Sur	Date of Te	est Coupon O. 03.19
Welder Barolay Elkuit	Date of To	est Coupon 16-63-19

The above named individual is qualified in accordance with AWS D17.1.2001 to weld